PTO/SB/21 (09-04) Approved for use through 07/31/2006. U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE k Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. **Application Number** 10/707.744 TRANSMITTAL Filing Date January 8, 2004 **FORM** First Named Inventor Sugar et al. Art Unit 2681 **Examiner Name** Not Yet Known (to be used for all correspondence after initial filing) Attorney Docket Number COG-2-0977.02.US Total Number of Pages in This Submission **ENCLOSURES** (Check all that apply) After Allowance Communication to TC Fee Transmittal Form Drawing(s) Appeal Communication to Board Fee Attached Licensing-related Papers of Appeals and Interferences Appeal Communication to TC Petition Amendment/Reply (Appeal Notice, Brief, Reply Brief) Petition to Convert to a After Final Proprietary Information Provisional Application Power of Attorney, Revocation Affidavits/declaration(s) Change of Correspondence Address Status Letter Other Enclosure(s) (please Identify Terminal Disclaimer Extension of Time Request below): Statement Under 37 CFR 3.73 Request for Refund **Express Abandonment Request** (b) and Copy of Assignment CD, Number of CD(s) Information Disclosure Statement Landscape Table on CD Certified Copy of Priority Remarks Document(s) Reply to Missing Parts/ Incomplete Application Reply to Missing Parts under 37 CFR 1.52 or 1.53 SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT Firm Name VOLPE AND KOENIG, P.C. Signature Printed name Anthony L. Venezia Date 4-6-2005 Reg. No. 48.382 CERTIFICATE OF TRANSMISSION/MAILING I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below: Signature Date Typed or printed name 4-6-2005 Anthony L. Venezia

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Approved for use through 11/30/2005.

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE der the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

# POWER OF ATTORNEY TO PROSECUTE APPLICATIONS BEFORE THE USPTO

Practitioners associated with the Customer Number:    Practitioner(s) named below (if more than ten patent practitioners are to be named, then a customer number must be used):    Name	I hereby	revoke all p	revious powers of attorney	given in the applic	ation identified	d in the attached st	atement under
Practitioners associated with the Customer Number:  OR  Practitioner(s) named below (if more than ten patent practitioners are to be named, then a customer number must be used):  Name  Registration Number  Number  Name  Registration Number  Number  Name  Registration Number  Number  Number  Name  Registration Number  Number  Number  Number  Number  Name  Registration Number  Nu							×
Practitioner(s) named below (if more than ten patent practitioners are to be named, then a customer number must be used):    Name		• •	ciated with the Customer Number:		24374		
as attorney(s) or agent(s) to represent the undersigned before the United States Patent and Trademark Office (USPTO) in connection with any and all patent applications assigned and to the undersigned according to the USPTO assignment records or assignment documents attached to this form in accordance with 37 CFR 3.73(b).  Please change the correspondence address for the application identified in the attached statement under 37 CFR 3.73(b) to:  24374  The address associated with Customer Number:  City  Country  Telephone  Fax  Assignee Name and Address:  IPR Licensing, Inc.  Licensing, Inc.  Licensing, Inc.  Acpy of this form, together with a statement under 37 CFR 3.73(b) (Form PTO/SB/96 or equivalent) is required to be filed in each application in which this Fower of Attorney is to be filed.  A copy of this form, together with a statement under 37 CFR 3.73(b) (Form PTO/SB/96 or equivalent) is required to be filed in each application in which this Fower of Attorney is to be filed.  SIGNATURE of Assignee of Record  The individual whose signature and file is supplied below is authorized to act on behalf of the assignee.  SIGNATURE of Assignee of Record  The individual whose signature and file is supplied below is authorized to act on behalf of the assignee.  SIGNATURE of Assignee of Record  The individual whose signature and file is supplied below is authorized to act on behalf of the assignee.  SIGNATURE of Assignee of Record  The individual whose signature and file is supplied below is authorized to act on behalf of the assignee.  Date Man 24 05  Telephone 610-878-7800	OR						
as altomey(s) or agent(s) to represent the undersigned before the United States Patent and Trademark Office (USPTO) in connection with any and all patent applications assigned <u>enh</u> to the undersigned according to the USPTO assignment records or assignment documents attached to this form in accordance with 37 CFR 3.73(b).  Please change the correspondence address for the application identified in the attached statement under 37 CFR 3.73(b) to:  The address associated with Customer Number:  24374  The address associated with Customer Number:  City  State  VOLPE AND KOENIG, P.C., DEPT. ICC  Address  City  State  Zip  Assignee Name and Address:  IPR Licensing, Inc.  Suite 105, Hagley Building 3411 Silverside Road  Wilmington, Delaware 19801  A copy of this form, together with a statement under 37 CFR 3.73(b) (Form PTO/SB/96 or equivalent) is required to be filed in each application in which this form is used. The statement under 37 CFR 3.73(b) may be completed by one of the practitioners appointed in this form if the appointed practitioner is authorized to act on behalf of the assignee, and must Identify the application in which this Power of Attorney is to be filed.  Signature  Signature  Date  The individual whose signature and file is supplied below is authorized to act on behalf of the assignee  Date  The ipdividual whose signature and file is supplied below is authorized to act on behalf of the assignee  Telephone 610-878-7800	Pra	actitioner(s) nam	ned below (if more than ten patent	practitioners are to be	named, then a cu	stomer number must b	e used):
as attorney(s) or agent(s) to represent the undersigned before the United States Patent and Trademark Office (USPTO) in connection with any and all patent applications assigned only to the undersigned according to the USPTO assignment records or assignment documents attached to this form in accordance with 37 CFR 3.73(b) to:  Please change the correspondence address for the application identified in the attached statement under 37 CFR 3.73(b) to:  24374  The address associated with Customer Number:  OR  Signature  Please change the correspondence address for the application identified in the attached statement under 37 CFR 3.73(b) to:  24374  24374  State  Zip  Country  Telephone  Fax  Assignee Name and Address:  PPR Licensing, Inc.  Suite 105, Hagley Building 3411 Silverside Road  Wilmington, Delaware 19801  A copy of this form, together with a statement under 37 CFR 3.73(b) (Form PTO/SB/96 or equivalent) is required to be filled in each application in which this form is used. The statement under 37 CFR 3.73(b) may be completed by one of the practitioners appointed in this form if the appointed practitioner is authorized to act on behalf of the assignee, and must identify the application in which this Power of Attorney is to be filed.  SigNaTure of Assignee of Record  The individual whose signature and filte is supplied below is authorized to act on behalf of the assignee.  Signature  Dotale May 24 05  Telephone 610-878-7800		<del></del>	Name			Name	
as attorney(s) or agent(s) to represent the undersigned before the United States Patent and Trademark Office (USPTO) in connection with any and all patent applications assigned only to the undersigned according to the USPTO assignment records or assignment documents attached to this form in accordance with 37 CFR 3.73(b).  Please change the correspondence address for the application identified in the attached statement under 37 CFR 3.73(b) to:    The address associated with Customer Number:   24374							Number
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The address associated with Customer Number:    24374	any ang a	II patent applica	tions assigned only to the undersid	gned according to the t	JSPTO assignme	ent records or assignme	nt documents
Firm or Individual Name VOLPE AND KOENIG, P.C., DEPT. ICC  Address  City State Zip  Country  Telephone Fax  Assignee Name and Address: IPR Licensing, Inc. Suite 105, Hagley Building 3411 Silverside Road Wilmington, Delaware 19801  A copy of this form, together with a statement under 37 CFR 3.73(b) (Form PTO/SB/96 or equivalent) is required to be filed in each application in which this form is used. The statement under 37 CFR 3.73(b) may be completed by one of the practitioners appointed in this form if the appointed practitioner is authorized to act on behalf of the assignee, and must identify the application in which this Power of Attorney is to be filed.  SIGNATURE of Assignee of Record The individual whose signature and little is supplied below is authorized to act on behalf of the assignee  Signature Date May 24, 05  Telephone 610-878-7800  Title Vice President-Intellectual Property & Chief Patent Counsel	Please ch	ange the corres	pondence address for the applicat	ion identified in the atta	sched statement (	under 37 CFR 3.73(b) to	D:
Firm or Individual Name VOLPE AND KOENIG, P.C., DEPT. ICC  Address  City State Zip  Country  Telephone Fax  Assignee Name and Address: IPR Licensing, Inc. Suite 105, Hagley Building 3411 Silverside Road Wilmington, Delaware 19801  A copy of this form, together with a statement under 37 CFR 3.73(b) (Form PTO/SB/96 or equivalent) is required to be filed in each application in which this form is used. The statement under 37 CFR 3.73(b) may be completed by one of the practitioners appointed in this form if the appointed practitioner is authorized to act on behalf of the assignee, and must identify the application in which this Power of Attorney is to be filed.  SIGNATURE of Assignee of Record The individual whose signature and title is supplied below is authorized to act on behalf of the assignee  Signature  Date  Date  Date  Date  Date  Telephone 610-878-7800  Telephone 610-878-7800				24	274		
Firm or Individual Name Address  City State Zip  Country  Telephone Fax  Assignee Name and Address: IPR Licensing, Inc. Suite 105, Hagley Building 3411 Silverside Road Wilmington, Delaware 19801  A copy of this form, together with a statement under 37 CFR 3.73(b) (Form PTO/SB/96 or equivalent) is required to be filed in each application in which this form is used. The statement under 37 CFR 3.73(b) may be completed by one of the practitioners appointed in this form if the appointed practitioner is authorized to act on behalf of the assignee, and must identify the application in which this Power of Attorney is to be filed.  SIGNATURE of Assignee of Record The individual whose signature and little is supplied below is authorized to act on behalf of the assignee  Signature Date May 24 05  Name Donald M. Boles Telephone 610-878-7800  Title Vice President-Intellectual Property & Chief Patent Counsel		The address as	sociated with Customer Number:	24.	3/4		
Address  City State Zip  Country  Telephone Fax  Assignee Name and Address:  IPR Licensing, Inc.  Suite 105, Hagley Building 3411 Silverside Road  Wilmington, Delaware 19801  A copy of this form, together with a statement under 37 CFR 3.73(b) (Form PTO/SB/96 or equivalent) is required to be filed in each application in which this form is used. The statement under 37 CFR 3.73(b) may be completed by one of the practitioners appointed in this form if the appointed practitioner is authorized to act on behalf of the assignee, and must identify the application in which this Power of Attorney is to be filed.  SIGNATURE of Assignee of Record  The individual whose signature and little is supplied below is authorized to act on behalf of the assignee.  Signature  Date Mu 24,05  Telephone 610-878-7800  Title Vice President-Intellectual Property & Chief Patent Counsel		m or					·
City State Zip  Country  Telephone Fax  Assignee Name and Address: IPR Licensing, Inc. Suite 105, Hagley Building 3411 Silverside Road Wilmington, Delaware 19801  A copy of this form, together with a statement under 37 CFR 3.73(b) (Form PTO/SB/96 or equivalent) is required to be filed in each application in which this form is used. The statement under 37 CFR 3.73(b) may be completed by one of the practitioners appointed in this form if the appointed practitioner is authorized to act on behalf of the assignee, and must identify the application in which this Power of Attorney is to be filed.  SIGNATURE of Assignee of Record  The individual whose signature and fittle is supplied below is authorized to act on behalf of the assignee  Signature  Date  Date  Date  Telephone 610-878-7800  Title  Vice President-Intellectual Property & Chief Patent Counsel	Ind Ind	lividual Name	VOLPE AND KOENIG, P.C	., DEPT. ICC			
Assignee Name and Address: IPR Licensing, Inc. Suite 105, Hagley Building 3411 Silverside Road Wilmington, Delaware 19801  A copy of this form, together with a statement under 37 CFR 3.73(b) (Form PTO/SB/96 or equivalent) is required to be filed in each application in which this form is used. The statement under 37 CFR 3.73(b) may be completed by one of the practitioners appointed in this form if the appointed practitioner is authorized to act on behalf of the assignee, and must identify the application in which this Power of Attorney is to be filed.  SIGNATURE of Assignee of Record The individual whose signature and little is supplied below is authorized to act on behalf of the assignee  Signature  Date  Date  Date  May 24,05  Telephone 610-878-7800  Title Vice President-Intellectual Property & Chief Patent Counsel	Address	ĺ					
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Suite 105, Hagley Building 3411 Silverside Road Wilmington, Delaware 19801  A copy of this form, together with a statement under 37 CFR 3.73(b) (Form PTO/SB/96 or equivalent) is required to be filed in each application in which this form is used. The statement under 37 CFR 3.73(b) may be completed by one of the practitioners appointed in this form if the appointed practitioner is authorized to act on behalf of the assignee, and must identify the application in which this Power of Attorney is to be filed.  SIGNATURE of Assignee of Record  The individual whose signature and jitle is supplied below is authorized to act on behalf of the assignee  Signature  Date  Date  Date  Telephone 610-878-7800  Title  Vice President-Intellectual Property & Chief Patent Counsel	Assignee I	Name and Addr	ess:			<del>.</del>	· · · · · · · · · · · · · · · · · · ·
3411 Silverside Road Wilmington, Delaware 19801  A copy of this form, together with a statement under 37 CFR 3.73(b) (Form PTO/SB/96 or equivalent) is required to be filed in each application in which this form is used. The statement under 37 CFR 3.73(b) may be completed by one of the practitioners appointed in this form if the appointed practitioner is authorized to act on behalf of the assignee, and must identify the application in which this Power of Attorney is to be filed.  SIGNATURE of Assignee of Record  The individual whose signature and little is supplied below is authorized to act on behalf of the assignee  Signature  Date  Date  Date  Telephone 610-878-7800  Telephone 610-878-7800						•	
Wilmington, Delaware 19801  A copy of this form, together with a statement under 37 CFR 3.73(b) (Form PTO/SB/96 or equivalent) is required to be filed in each application in which this form is used. The statement under 37 CFR 3.73(b) may be completed by one of the practitioners appointed in this form if the appointed practitioner is authorized to act on behalf of the assignee, and must identify the application in which this Power of Attorney is to be filed.  SIGNATURE of Assignee of Record  The individual whose signature and little is supplied below is authorized to act on behalf of the assignee  Signature  Date  Date  Date  Telephone 610-878-7800  Title  Vice President-Intellectual Property & Chief Patent Counsel						•	
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Title Vice President-Intellectual Property & Chief Patent Counsel			**	lo- 27 CED 2 72/h)	(F DTO/0D	(00 1 - 1 - 0 <b>-</b>	<del></del>
the practitioners appointed in this form if the appointed practitioner is authorized to act on behalf of the assignee, and must identify the application in which this Power of Attorney is to be filed.  SIGNATURE of Assignee of Record  The individual whose signature and little is supplied below is authorized to act on behalf of the assignee  Signature  Date  Date  1 Plephone 610-878-7800  Title  Vice President-Intellectual Property & Chief Patent Counsel	tiled in e	ach applicati	on in which this form is used	<ol> <li>The statement u</li> </ol>	nder 37 CFR 3.	73(b) may be comp	leted by one of
Signature Date Donald M. Boles  Title Vice President-Intellectual Property & Chief Patent Counsel	the pract	titioners appo	pinted in this form if the appo	Inted practitioner	is authorized to	o act on behalf of the	ne assignee,
The individual whose signature and little is supplied below is authorized to act on behalf of the assignee  Signature  Date 24.05  Name  Donald M. Boles  Telephone 610-878-7800  Title  Vice President-Intellectual Property & Chief Patent Counsel	and mus	t identity the					· · · · · · · · · · · · · · · · · · ·
Name Donald M. Boles Telephone 610-878-7800  Title Vice President-Intellectual Property & Chief Patent Counsel		SIGNATURE of Assignee of Record  The individual whose signature and little is supplied below is authorized to act on behalf of the assignee					
Title Vice President-Intellectual Property & Chief Patent Counsel			were				
Title Vice President-Intellectual Property & Chief Patent Counsel		Donald M. Boles Telephone 610-878-7800					
	Title	Vice Presid	ent-Intellectual Property & (	Chief Patent Coun	sel		

by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

100	- Present				
APR 1	ander the Paperwork Reduction Act of 1995, no persons are	PTO/SB/96 (08-03)  Approved for use through 07/31/2006.  U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE required to respond to a collection of information unless it displays a valid OMB control number.			
		ENT UNDER 37 CFR 3.73(b)			
	Applicant/Patent Owner: IPR Licensing, Inc.				
	Application No./Patent No.: 10/707,744	Filed/Issue Date: January 8, 2004			
	Entitled: MULTIPLE-INPUT MULTIPLE-OUTPUT	RADIO TRANSCEIVER			
	IPR Licensing, Inc.	, a Corporation			
	(Name of Assignee)	(Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)			
	states that it is: 1. 区 the assignee of the entire right, title, and interest	est; or			
	2.   an assignee of less than the entire right, title a The extent (by percentage) of its ownership in in the patent application/patent identified above by v	terest is ————%			
	A. [ ] An assignment from the inventor(s) of the patent application/patent identified above. The assignment was re in the United States Patent and Trademark Office at Reel, Frame, or for which a copy attached.				
	OR				
	B. [ ] A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as show below:				
	From:  The document was recorded in the Uni  Reel, Frame	ted States Patent and Trademark Office at, or for which a copy thereof is attached.			
	From:  The document was recorded in the Uni Reel, Frame,	To: ted States Patent and Trademark Office at , or for which a copy thereof is attached.			
		To: ted States Patent and Trademark Office at, or for which a copy thereof is attached.			
	[ ] Additional documents in the chain of tit	le are listed on a supplemental sheet.			
		nment document or a true copy of the original document) cordance with 37 CFR Part 3, if the assignment is to be			
	The undersigned (whose title is supplied below) is a	uthorized to act on behalf of the assignee.			
	4-6-2005	Anthony L. Venezia			
	Date 215-568-6400	Typed or printed name			
	Telephone number	Signature			
		Patent Agent			
		Title			

This collection of information is required by 37 CFR 3.73(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Office, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

## **ASSIGNMENT**

WHEREAS, Cognio, Inc. ("Assignor"), a Delaware corporation having a mailing address of 20400 Observation Drive, Suite 206, Germantown, Maryland 20876 is the owner of the entire right, title, and interest in and to the patent properties listed in Schedule A except to the extent set forth in Paragraph 2 "Limitation" of Schedule B (the "Identified IPR") and the know-how, copyrights and other intellectual property rights listed on Schedule B ("the IPR Blocks"); and

WHEREAS, IPR Licensing Inc., a Delaware corporation having a mailing address of Suite 105, Hagley Building, 3411 Silverside Road, Concord Plaza, Wilmington, Delaware 19810 and a wholly owned subsidiary of InterDigital Communications Corporation ("Assignee") is desirous of acquiring the entire right, title, and interest in and to the Identified IPR and IPR Blocks and the additional patent properties identified below (all of said Identified IPR, IPR Blocks, and patent properties being referred to herein as the "Assigned IPR Assets").

NOW, THEREFORE, Assignor, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, does hereby SELL, ASSIGN, and CONVEY unto Assignee all right, title, and interest throughout the world in and to:

- The Identified IPR and the IPR Blocks;
- 2. All inventions disclosed by the Identified IPR and the IPR Blocks;
- All patents and like protection that have now been or may in the future be granted and that claim the inventions disclosed by the Identified IPR and

- the IPR Blocks, whether in the United States of America or in any other country or place anywhere in the world;
- 4. All Patent Families (as defined in Schedule B hereto) of the Identified IPR and like grants, including without limitation, those obtained or permissible under past, present, and future law or statutes;
- 5. The right to Assignee to file in its name applications for patents and like protection for said Identified IPR and IPR Blocks in any country or countries foreign to the United States;
- All international rights or priority associated with said Identified IPR (said Identified IPR, IPR Blocks and any and all rights, including patents and patent applications, covered by Items No. 2-6 hereof collectively referred to herein as the "Assigned IPR Assets");
- 7. All rights of action on account of past, present, and future unauthorized use of said Assigned IPR Assets and for infringement of said Assigned IPR Assets and like protection; and
- 8. All past, present, and future rights of recovery for unauthorized use of said Assigned IPR Assets under any provisional rights or like protection:

The U.S. Commissioner of Patents and Trademarks and any and all similarly situated officials in other countries are hereby requested to issue Letters Patent in accordance with this Assignment.

#### **GENERAL**

Assignee hereby accepts the foregoing assignment but shall not assume
 any liabilities, debts and obligations associated with the Assigned IPR

- Assets, except for obligations for fees to maintain registrations or continue to prosecute the Identified IPR;
- 2. Assignor shall cooperate with Assignee, at Assignee's sole expense, in any action Assignee reasonably requests that Assignor take in order to effectuate, carry out, or fulfill the parties' intent and/or Assignor's obligations hereunder, including, without limitation, the execution of any instruments and papers that are necessary or desirable, in Assignee's sole discretion, to consolidate, confirm, vest and/or record Assignee's full and complete ownership of the Assigned IPR Assets with, for example, the U.S. Patent and Trademark Office or equivalent foreign offices;
- This Assignment shall inure to the benefit of Assignee and its successors and assigns and shall be binding upon Assignor and its successors and assigns;
- 4. This Assignment and all questions relating to its validity, interpretation, performance and enforcement shall be governed by and construed in accordance with the laws of the State of Delaware;
- 5. This Assignment and the Purchase Agreement between Assignee and Assignor dated March 9, 2005 contain the entire agreement and understanding of the parties relating to the subject matter hereof, and merge and supersede all the parties relating to the subject matter hereof. This Assignment may not be changed or modified, except by an agreement in writing signed by each of the parties; and
- 6. This Assignment may be executed by facsimile and in counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by their duly authorized representatives and Assignor has delivered this instrument to Assignee effective the 9th day of March, 2005.

ASIGNOR: Cognio, Inc.	
Today's Date: <u>March 9, 2005</u> By: <u>MMM</u>	_
State of Maryland State of Ss.:	
County of Kederick  On March 9,305 before me, Sarah Report , Notary Public, personally appeared 100 McPherson , personally known or proved to me the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she is executed the same in his/he authorized capacity and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.	er
Witness my hand and official seal.  Soron Bennett  NOTARY PUBLIC  Frederick COUNTY  MARYLAND  Notary Public  Notary Public  Notary Public	
ASSIGNEE: IPR Licensing Inc. Today's Date: March 14, 2005 By: SM	
Title: Vice President	
State of SS.:  County of New! Cast le.  On Mach 14, 7005 before me. Chlerin Sinkewis Notary Public, personally appeared Poblic Domahium, personally known or proved to me the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she is executed the same in his/he authorized capacity and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.	er
Witness my hand and official seal.	
Notary Public	

Schedule A - Identified IPR

CATHERINE E. SINKEWICZ
NOTARY PUBLIC
STATE OF DELAWARE
My Commission Expires Oct. 3, 2007

Matter	Title	Filing Date	Serial Number	Country of Filing	Patent Number
Cognio77/US	A/TupabletUpconverter/Mixer With Image Rejection	01/20/2003	10/248/432	Unled States of Americal	
Cognio777PCT	VAl Tunable Upconverter Mixer With Image Rejection	18 17 1 1 10 1 1 1 1 1	PCT/US04/00915	WIEO	
Cognio83US	Compensation Techniques for Group Delay Effects in Transmit Beamforming Radio Communication	02/13/2004	10/779,269	United States of America	
Cognio83PCT	Compensation Techniques for Group Delay Effects in Transmit Beamforming	06/01/2004	PCT/US04/17268	WIPO	
Cognio21PCT	Improving the Efficiency of Rower Amplifiers intoevices Using Transmit Beamforming	(03/13/2003)	PCT/USO3/07/561	wpo	
Cognic21US	improvingsthelefficiency of Power Amplifiers in Devices Justing 1971 (Transmit Beamforming 1971)	03/13/2003	0/249.063	United States of America	
Cognio21US2	Improving their maency of Power Ampilliers in Devices Using Transmit Beamforming	06/14/2004	0/867-249	United States of 4. America	
The Application of the Contraction	and the highest constant that an extension	E. B. C.	Presidential Color to per seguin	marker such strait broken at the sail	
Cognio99US	Master-Slave Local Oscillator Porting Between Radio Integrated Circuits	12/04/2003	10/707,312	United States of America	
Cognio99US	Porting Between Radio	12/11/2604	10/707,312		
	Porting Between Radio Integrated Circuits Multiple (aput Multiple Output)			America	67728:517:B2
Cognio50GN	Porting Between Radio Integrated Circuits  Multiple Input Multiple Output MiMol Radio Transceiver  Multiple Input Multiple Output Radio irransceiver  Multiple Input Multiple Output Radio irransceiver	12/31/2004 11/3/1/2002 11/3/1/2003	1038090457	America China China United States of	6728517B2
Cognio50GN Cognio55US	Porting Between Radio Integrated Circuits  Multiple Input Multiple Output MiMoiRadio Transceiver  Multiple Input Multiple Output Radio Transceiver  Multiple Input Multiple Output Radio Transceiver  Multiple Input Multiple Output Radio Transceiver Input Multiple Output M	27:17:2004 107:17:2002 1:07:17:2003 04:21:2003 04:21:2003	03809045.7. 07065 388 92,09032	America  Cohina  United States of America  America	6.728:517:B2
CognioSOCN CognioSOUS	Porting Between Radio Integrated Circuits  Multiple Input Multiple Output MiMo Radio Transceiver  Multiple Input Multiple Output Radio Irransceiver  Multiple Input Multiple Curput Radio Irransceiver	12/11/2004 11/11/2002 110/11/2002	0380904577 107055388 117124 922108032	America  Cohina  United States of America  America	6.728.517.B2
CognioSDUS CognioSDUS CognioSOTY	Porting Between Radio Integrated Circuits  Multiple Input Multiple-Output MiMOIRadio Transceiver  Multiple Input Multiple-Output Radio Irransceiver  Multiple Input Multiple-Output Radio Irransceiver  Multiple Input Multiple-Output Radio Irransceiver I Multiple-Input Multiple-Output Radio Irransceiver I Multiple-Input Multiple-Output Radio Irransceiver I Multiple-Input Multiple-Output Radio Irransceiver	12/33/2004 1/3/3/2002 1/3/3/2003 1/3/3/2003 1/3/3/2003 1/3/3/3/3/3/3/3/3/3/3/3/3/3/3/3/3/3/3/	0.3809045.7. 0.0065.388 0.208282.1. 0.208282.1. 0.208282.1. 0.208282.1. 0.208282.1. 0.20828.2. 0.20	America  Conina  UnitediStates on America  Tranvant  WIPO 15  WIPO 15  European Union	

Cognio97PCT	Signal Interfacing Techniques to Simplify Integrated Circuit Radio Designs	05/14/2004	PĆT/US04/15339	WIPO.	
Arya40US	Svetem and Method for Antenna larversity using Equal pover Delnti Meximal Ratio Combining	06/19/29021		Unlied States of America	6785;520B2+j
Cognle40TW	System and Method for Antenna Diversity Using Equal Rower Joint Maximal Ratio Combining	02/26/2003	92(04066)	awa.	
Cognic40RCT	IS ystem and Methodico; Antenna Diversity Using Equal Power Joint Maximal Ratio Combining	/02/26/2003	(RCT/03/05644	WPO	
9. 19. 19. 19. 19. 19. 19. 19. 19. 19. 1	Svetem and Method for Antennal Diversity Genglequal Power Long Maximal Ratio Compiling	109/15/2001 109/15/2001	0800600	CUnited States of America	
.Aryya18US	System and Method for Antenna Diversity Using Joint Maximal Ratio Combining	06/19/2002	10/174,728	United States of America	6,687,492 B2
Cognio18TW	System and Method for Antenna Diversity Using Joint Maximal Ratio Combining	02/26/2003	92104059	Talwan	224405
Cognio18PCT	System and Method for Antenna Diversity Using Joint Maximal Ratio Combining	02/26/2003	PCT/03/05642	WIPO	
Cognio18US2.	System and Method for Antenna Diversity Using Joint Maximal Ratio Combining	10/28/2003	10/695,229	United States of America	
Cegnio38US	System and Method for Joint, Maximal Railo Gombining Using Time Comain Based Signal Processing to	07/18/2002	0/084/482 0/084/482	Dnited States of Camerical	
2 N 2 N 2 N 2 N 2 N 2 N 2 N	System and Metros for John Makmal Railo Combining Lang Time-Domain Signal Pricessing	02/26/2003	92 04080 13 04080	il alvan	1226765
	System and Method (of Jeon) Maximal Rano Comoning Using 2 Time-pointal Signal Processing)	02/23/2018	P. Pot 1 (6-2) (2-2) (1-2)	West 1	
20 20 20 20 20 20 20 20 20 20 20 20 20 2	Systemiand Method to identify IVasinal Rate Combining Using Time-Domain Based Signal Processing	12/23/2003	07707668	United States of IAmerica	
Cognio29PCT	System and Method for Multiple- Input Multiple Output (MIMO) Radio Communication	07/25/2003	; PCT/US03/23408		
Cognic29US	System and Method for Multiple- Input Multiple-Output (MIMO) Radio Communication	07/25/2003	10/627;537	United States of America	
Cognio29US2	System and Method for Transmit Weight Computation for Vector Beamforming Radio Communication	02/13/2004	10/779,268	United States of America	
Aryya23US	Systems and Methods for Improving Range for Multicast Wireless Communication	06/19/2002	10/17/4(690	United States of America	

CogniozstW	Systemstand Methods for improving Range to Multicast Wireless Communication	102/26/2003	100 A	Talwan	
Cognie23RCT	Systems and Methods for In provinc Raige to Multicast Wireless Communication	02/26/2003	164 1154 1150 1150 1150 1150 1150 1150	WPO	
Cognio23US2	Systems and Methods for sulfin proving Range of Mullicast Wireless Communication	105/27/2004	10/855 279 V	United States of America	
Cognio52US	Techniques for Correcting for Phase and Amplitude Offsets in a MIMO Radio Device	06/09/2003	10/457,293	United States of America	
Cognio52PCT	Techniques for Correcting for Phase and Amplitude Offsets in a MIMO Radio Device	09/09/2003	PCT/US03/28126	WÏPO	
Cognio52US2	Techniques for Correcting for Phase and Amplitude Offsets in a MIMO Radio	06/02/2004	10/859,255	United States of America	
Cognio 102US	Variable Gain Amplifier with Low - Phase Variation	10174272005	31/034/224 31/034/224	United States of America	
Cognio57US	Voltage-Controlled Oscillator with Automatic Amplitude Control Circuit	11/13/2002	10/065,719	United States of America	6,700,450 B2
Cognio8US	Improving Throughput in Multi- Chate Wijeless Networks Using Variable Leggth Packets and Other Techniques	10/24/2002	10/065/494 12/3/494	United States of America 1	

Matter	Title	Filing Date	Serial Number
30014380.0008	Improving Throughput in Multi-Rate Wireless Networks Using Variable-Length Packets and Other Techniques	10/30/2001	60/330,755
Aryya18Prov	Antenna Diversity Scheme Using Joint Maximal Ratio Combining	03/01/2002	60/361,055
30014380.0021	Improving Efficiency of Power Amplifiers for WLAN Terminals Using Transmit Beamforming	03/21/2002	60/365,811
30014380.0022	Method for Maintaining Channel State Information at the Transmitter to Improve Link Quality in Multi-User WLAN Radio Systems	03/21/2002	60/365,775
30014380.0020	Improving Range and Throughput of Wireless LANs in Frequency Selective Fading Environments	03/21/2002	60/365,797
30014380,0023	Techniques for Improving Range in Composite Beamforming- Enhanced 802.11x Networks	03/21/2002	60/365,774

Arýya31Prov	System and Architecture for Wireless Transceiver Employing Composite Beamforming and Spectrum Management Techniques	04/22/2002	60/374,531
Aryÿa39Prov	Reducing Cost of a Half-Duplex Transceiver Integrated Circuit By Sharing a Single Filter for Receive and Transmit Operations	04/29/2002	60/376,722
-Aryya4û₽rov	Antenna Diversity Scheme Using Equal Gain Composite Beamforming	05/06/2002	60/380,139
Aryya53Prov	System and Method for Sharing an ADC and a DAC in a Half- Duplex Radio Transcelver	06/21/2002	60/319,336
Cognio44Prov	Half-Duplex Radio Transceiver Supporting Dual Band and Scalable Multi-Channel Operations	06/27/2002	60/319,360
Cognio57Prov	Voltage-Controlled Oscillator with Automatic Amplitude Control Circuit	07/29/2002	60/319,430
Cognio29Prov	System and Method for Vectorized Data Transmission Between Communication Devices	07/30/2002	60/319,437
Cognio50Prov	Radio Transceiver Having Multiple Integrated Receive and Transmit Paths and a Wideband Operation Mode	07/30/2002	60/319,434
Cognio52Prov	Techniques for Correcting Phase Mismatch in MIMO Radio Transceivers	09/10/2002	60/409,677
Cognio29Prov2	System and Method for Equal Power Vectorized Data Communication	04/10/2003	60/461,672
Cognio83Prov	Synchronization Algorithm to Compensate for Group Delay Effects on Transmit Beamforming	06/09/2003	60/476,982
Cognio29Prov3	System and Method for Vectorized Radio Communication	06/19/2003	60/479;945
Cognio97Pròv	Signal Multiplexing Techniques to Simplify Integrated Radio Circuit Design	07/25/2003	60/481,139
Cognio99Prov	Master-Slave Local Oscillator Porting Technique Between Multiple Integrated Circuits	09/19/2003	60/481,399
Cognia29Prav4	System and Method for Transmit Weight Computation for Multiple-Input Multiple-Output (MIMO) Radio Communication	10/15/2003	60/511,530
Cognio102Prov	Variable Gain Amplifier With Low Phase Variation	01/28/2004	60/539,643
Cognio97Prov2	Sharing a Connection Pin on a Radio Integrated Circuit for Transmit and Receive Signals	02/02/2004	60/481.995

Cogálo73Prov	Interface Between MIMO Radio Chip and Baseband Chip	05/30/2003	60/474494
Aryya45Prov	RF Amplifier with Blas Boosting Scheme Using a Voltage Divider	05/30/2002	60/319,275
Aryya48Prov	RF Amplifier with a Self-Blas Boosting Scheme Using PNR Transistors	06/21/2002	60/319,335
Aryya47Prov	Blas Boosting Schemes for Cascode-Configured RF Transistors	06/21/2002	60/319;334
Aryya56Prov	RF Amplifier with a Blas Boosting Scheme for a Complementary Push-Pull Configuration	06/21/2002	60/319,337
Cognlo66Prov	Self-Blas Boosting Schemes for a Differential RF Amplifier	10/18/2002	06/319,629
Cognio72Prov	RF Amplifier with a Stable Bias Boosting Scheme	11/06/2002	06/319,672
Cognio55Prov	Method of Testing the Divider Circuitry of an Integrated Integer-N Style PLL or Fractional-N Style PLL	06/27/2002	60/319,361
Cognio62Prov	Frequency Synthesizer for Multi-Band Super-Heterodyne Transceiver Applications	09/04/2002	60/319,518
Cognio110Prov	A 5GHz Direct Conversion Receiver with DC Offset Correction (Published May, 2004, International Symposium on Circuits and Systems, pp. IV, 269-272)	10/07/2003	60/509,286
Cognio79Prov	A Fully Integrated Power Detector	09/04/2003	60/481,327

## Schedule B - IPR Blocks

- 1) IPR BLOCKS ASSIGNED: Any and all know-how, copyrights and other intellectual property rights related to the Identified IPR set forth on Schedule A hereto (except to the extent set forth in Paragraph 2 below) and the FPGA Development Platforms, but excluding trademarks and the Excluded IPR Blocks.
- 2) LIMITATION: US provisional patent applications identified as Aryya31Prov (Serial No. 60/374,531) and Cognio73Prov (Serial No. 60/474494) each contain information related to the Excluded IPR Blocks, and that, notwithstanding anything to the contrary in this Agreement, Assignee's rights related to such applications extend only to support the priority date for US Patent Number 6,728,517 (with respect to Aryya31Prov) and US Serial No. 10/707, 447 and PCT Serial No. PCT/USO4/15339 (with respect to Cognio73Prov), all of which are part of the Identified IPR. Except for this patent and these non-provisional patent applications (and their divisionals, continuations, continuations in part, reissues, reexaminations, and foreign equivalents), no other Patent Families associated with such provisional applications are transferred under this Agreement.
- 3) NO ASSIGNMENT: No rights are being assigned to the Excluded IPR Blocks.

### 4) DEFINITIONS:

"Excluded IPR Blocks" means any and all patents, know-how, copyrights and other intellectual property rights related to Seller's ongoing spectrum analysis/management business. Notwithstanding anything to the contrary contained in this Agreement (with the exception of paragraph 2 "Limitation" of this Schedule B above), the Identified IPR shall not be considered part of the Excluded IPR Blocks.

"FPGA Development Platforms" means two MIMO technology development boards, one that receives and the other that transmits, with FPGA Xilinx programmable chips which together form a 4x4 configuration.

"IPR Blocks" means any and all know-how, copyrights and other intellectual property rights related to the Identified IPR (except to the extent set forth in paragraph 2 "Limitation" of this Schedule B above) and the FPGA Development Platforms, but excluding trademarks, the Identified IPR, and the Excluded IPR Blocks.

"Patent Families" means a patent application or patent and all associated patents and patent applications (including without limitation divisionals, continuations, continuations in part, reissues, reexaminations, and foreign equivalents thereof), if any, that share any common priority date or identical specification. In the case of continuations in part that include new matter, the new matter shall be considered part of the same Patent Family as the matter bearing the same priority date or identical specification.